ICOM

VHF/UHF DUALBAND FM TRANSCEIVER

IC-2800H



Icom Inc.

3" multi-function TFT color LCD

The IC-2800H's unique TFT color LCD provides a wide viewable angle for easy viewing and four different display modes available to suit your preference. For extra convenience, switch labels are indicated on the display to help with nighttime viewing.

Note; 3" LCD is measured on the diagonal.

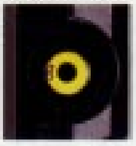
Separate controller

The controller is separated from the main unit for installation flexibility. Install the controller in a convenient location such as your vehicle's dashboard and put the main unit in an out-of-the-way place such as under a seat.



External video input

The IC-2800H's external video input terminal can be used to monitor TV broadcasting with a TV tuner, recorded pictures from a video/digital camera or for displaying a GPS map in conjunction with a car navigation system, etc. Either NTSC or PAL video format signal can be applied, depending on version.



Simple bandscope function

Easily find busy frequencies or unoccupied frequencies within a specified frequency bandwidth (up to ±500 kHz; according to selected tuning step). All signals are viewable on-screen. Note that no audio is emitted while the bandscope function is activated.

9600 bps packet terminal

A 9600 bps packet terminal is available for direct connection to a packet modem—very simple. 1200 bps packet is also possible from the packet terminal or the microphone connector.



Independent tuning controls

Icom's original, independent tuning control system is employed for smooth operation. A tuning dial, AF and squelch level controls and 4 function control switches are available for each band.

Convenient memory editing

EDIT mode allows you to easily modify the contents of memory channels, memory names, tone squelch/repeater tone frequencies and repeater offset frequencies, without the need to transfer contents. Current transceivers require you to transfer a memory to VFO, then reprogram it after doing any editing. Not so with the IC-2800H—you can directly modify memory contents while in memory mode for quick and simple memory editing.

Tone squelch standard

A tone squelch encoder and decoder are built-in for repeater access and quiet receiver standby. 50 tone frequencies are selectable and can be set for transmit/receive or repeater, independently. Additionally, a pocket beep function is available to alert you when a matched tone signal is received—convenient for group operation. A tone scan function helps find repeater access tones.

Selectable squelch attenuator

This convenient feature reduces interference from strong nearby signals. Rotate the squelch control deeper than the 12 o'clock position and the squelch attenuator is activated to reduce receiver sensitivity by up to 10 dB (approx.). In addition, the squelch attenuator can be turned on/off in the set mode.

Selectable squelch delay

This function maintains the squelch OFF condition for a specified period even when a receive signal becomes weaker than the squelch threshold level. The period is selectable from either long or short. You won't miss message content when a signal suddenly weakens, etc.

Remote control capability

The supplied HM-98*1 REMOTE CONTROL MICROPHONE or HM-90*2 WIRELESS MICROPHONE can be used to control almost all functions, such as operating frequency, output power setting, VFO/memory mode selection, etc., remotely. Key backlighting in the HM-98 provides easy operation even at night, and the HM-90 allows flexible installation and operation in your car or shack.

*1Optional for some versions; *2Optional EX-1759 INFRARED RECEIVER is additionally required.

Cloning capabilities

All memory channel contents and set mode contents are programmable from your PC simply and quickly with the optional CS-2800 CLONING SOFTWARE and OPC-478 CLONING CABLE. Programmable contents include operating frequency, tuning steps, duplex setting and direction, memory names and more.

Convenient memories

A total of 232 channels, 99 regular, 5 for log and repeater, 6 for program scan edges and 1 call channel for each band, are available. The log/repeater memories store transmitted frequency automatically for your records.

FM narrow capability*

To improve operation on narrow band VHF FM channels the IC-2800H is equipped with a dedicated narrow band FM mode.

*Europe and Italy versions only.

Other outstanding features

- Up to 50 W* or 35 W* of powerful output power for the VHF and UHF bands, respectively
  *25 W for Taiwan version
- Set mode helps simplify operation
- Tuning steps and DTMF can be set up from independent setting modes
- Built-in duplexer
- Controller bracket supplied
- Internal speaker is mounted in controller
- Adjustable LCD contrast and brightness
- Auto power OFF timer
- Auto repeater function (U.S.A. only)
- Programmable opening message
- Optional DTMF decoder, UT-49, provides sub band access function (HM-90/HM-98 required)

and more...

SPECIFICATIONS

GENERAL

• Frequency coverage : (Unit: MHz)

Version	144 MHz Band	430(440) MHz Band
USA	Rx: 118.0–174.0*1 Tx: 144.0–148.0	430.0–450.0*2
S. America	Rx: 118.0–174.0*1 Tx: 144.0–148.0	Rx: 400.0–530.0*3 Tx: 430.0–440.0
Europe, Taiwan	144.0–146.0	430.0–440.0
Italy	Rx: 136.0–174.0*1 Tx: 144.0–148.0	Rx: 400.0–530.0*3 Tx: 430.0–440.0
Asia	Rx: 136.0–174.0*1 Tx: 144.0–148.0	430.0–440.0

*1 Guaranteed 144.0–148.0 MHz only; *2 Guaranteed 440.0–450.0 MHz only;
*3 Guaranteed 430.0–440.0 MHz only

• Mode : FM, AM (118–135.995; Rx only)
• No. of memory channels : 232 (incl. 12 scan edges, 10 log, 10 repeater and 2 call)
• Tuning steps : 5, 10, 12.5, 15, 20, 25, 30 and 50 kHz
• Frequency stability : ±10 ppm (–10°C to +60°C)
• Power supply requirement : 13.8 V DC ±15% (negative ground)
• Current drain (VHF/UHF; at 13.8 V DC):
  Transmit — max. power 12.0 A/11.0 A
  Receive — standby 1.2 A; max. audio 1.8 A
• Antenna connector : SO-239 (50 Ω)
• DATA connector : Mini DIN 6-pin
• External VIDEO input : PHONO [RCA (75 Ω)]
• Dimensions (projections not included):
  Controller 140(W) × 70(H) × 34(D) mm; $5\frac{1}{2}$(W) × $2\frac{3}{4}$(H) × $1\frac{11}{32}$(D) inch
  Main unit 140(W) × 40(H) × 165.8(D) mm; $5\frac{1}{2}$(W) × $1\frac{9}{16}$(H) × $6\frac{17}{32}$(D) inch
• Weight (approx.) : Controller 290 g; 10.2 oz
  Main unit 1.15 kg; 2 lb 9 oz

TRANSMITTER

• Modulation system : Variable reactance
• Output power (VHF/UHF) : High* 50 W/35 W
  Mid-H* 20 W (approx.)
  Mid-L 10 W (approx.)
  Low 5 W (approx.)

* 25 W (High), 15 W (Mid-H) for both VHF and UHF for Taiwan version.

• Spurious emissions : –60 dB
• Microphone connector : 8-pin modular (600 Ω)

All stated specifications are subject to change without notice or obligations.

RECEIVER

• Receive system : Double conversion superheterodyne
• Intermediate frequencies : 1st 15.65 MHz (VHF), 46.05 MHz (UHF); 2nd 450 kHz (common)
• Sensitivity : 0.16 μV typical (at 12 dB SINAD)
• SQL sensitivity : Less than 0.13 μV (at threshold)
• Selectivity :
  Wide — More than 12 kHz/–6 dB; Less than 28 kHz/–60 dB
  Narrow (Europe/Italy VHF only) — More than 6 kHz/–6 dB; Less than 18 kHz/–60 dB
• Spurious and image rejection ratio: More than 60 dB
• Intermodulation rejection ratio: More than 60 dB
• Audio output power (at 13.8 V DC) : More than 2.4 W at 10% distortion with an 8 Ω load
• External SP1 connector : 2-conductor 3.5 (d) mm (1/8")/8 Ω
• External SP2 connector : 3-conductor 3.5 (d) mm (1/8")/8 Ω

Supplied accessories: *depending on version

❍ Hand microphone* ❍ Separation cable (3.5 m; 11.5 ft)
❍ Controller bracket kit ❍ DC power cable
❍ Mobile mounting bracket kit (for main unit)
❍ Spare fuse

OPTIONS

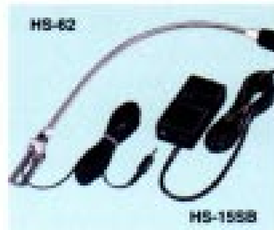
WIRELESS REMOTE ACCESSORIES



• **HM-90** WIRELESS MICROPHONE
Infrared, full remote control microphone. Wired remote control is also possible.
• **EX-1759** INFRARED RECEIVER
Used to receive control signals from the HM-90.
• **EX-1513** INFRARED SUBRECEIVER
Used with the EX-1759 to extend the controllable area.

MICROPHONES

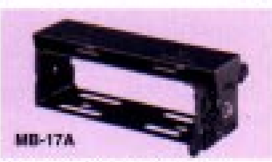




• **HM-98** REMOTE CONTROL MICROPHONE
Wired remote control microphone with key backlight. Same as supplied with some version.
• **HM-118** HAND MICROPHONE
• **HM-118T/TA** DTMF MICROPHONE
• **HM-95** DTMF MICROPHONE
• **HM-97** HAND MICROPHONE (with tone call)

• **HS-62** FLEXIBLE MOBILE MICROPHONE + **HS-15SB** SWITCH BOX + **OPC-589** ADAPTER CABLE
For all-around mobile operation.

BRACKETS





• **MB-17A** MOBILE MOUNTING BRACKET
One-touch bracket. Transceiver body easily attached and removed.
• **MB-65** MOUNTING BASE
Mounts the controller unit in a convenient location. Adjustable angle and direction for optimum positioning.
• **MB-73** CONTROLLER BRACKET
Mounts the controller to wall or flat surface. Same as supplied.

EXTERNAL SPEAKER



• **SP-10** EXTERNAL SPEAKER
For all-around mobile operation.

OTHER ACCESSORIES

• **CS-2800** CLONING SOFTWARE + **OPC-478** CLONING CABLE
Provides quick and easy programming of items, including memory channels, memory names and set mode contents for local repeater frequencies, etc. via PC.
• **OPC-346/OPC-347** DC POWER CABLES (20 A capacity)
OPC-346: 3.0 m (9.8 ft); OPC-347: 7.0 m (23 ft)
• **OPC-440/OPC-647** MIC. EXTENSION CABLES
OPC-440: 5.0 m (16.4 ft); OPC-647: 2.5 m (8.2 ft)
• **OPC-872** CONTROLLER EXTENSION CABLE (3.5 m; 11.5 ft)
• **UT-49** DTMF DECODER
Provides sub band access capabilities.

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